UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,202	06/29/2001	Nobuyuki Mizukoshi	14741	7573

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EXAMINER
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ART UNIT	PAPER NUMBER
2661	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 June 2001</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>6/29/01; 4/3/02</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 19, it is not clear how said control sequence includes "an abort sequence" and the extended control sequence includes "said abort sequence" are correlated.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-6, 9, 13, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Venters et al. (US 5,579,316), hereinafter Venters.

Regarding claim 1, Veanters discloses a communication system comprising:

a first communication unit sending transmission data (West transceiver site 11, see figure 1), a control sequence, and an extended control sequence, wherein said control sequence is originally defined by a protocol, and said extended control

sequence is undefined by said protocol and is provided for requesting an extended

operation, and said control sequence includes an abort sequence requesting for

abortion of said transmission data (the transceiver sends transmission data 124 which

includes parameter 125 (control sequence), extended control sequence 126 (see figure

5) or 145 in figure 7 having abort bit B1, and the transmission data 110, see figures 5

and 7 and col. 7 lines 3-22) ,

a second communication unit (East transceiver site 13, see figure 1) receiving

said transmission data, said control sequence, and said extended control sequence,

and executing said extended operation in response to said extended control sequence,

wherein said extended control sequence includes said abort sequence (see figures 5, 7

and col. 7 lines 3-22).

Regarding claim 4, Venters discloses the first communicating unit divides said

transmission data into a plurality of divided data, and sequentially transmits said

plurality of divided data to said second communication unit, and wherein said second

communicating system reproduces said transmission data from said plurality of divided

data in response to said extended control sequence (the micro-controller 80 assembled

into limited sized data frame , see col. 2 lines 26-40; and each data frame includes a

sequence number 129 in figure 6 and sequence 162 in figure 8).

Regarding claim 5, Venters discloses the first communication unit includes: a

transmission high order layer generating said transmission data; a transmission FIFO

transiently storing said transmission data, and sequentially outputting said transmission

data; and a transmission data processor reading said transmission data out of said

transmission FIFO to transmit said transmission data to said second communication

unit, and said transmission data processor divides said transmission data into a plurality

of divided data when an underflow occurs in said transmission FIFO, and sequentially

transmits said plurality of divided data to said second communication unit, and said

second communication unit reproduces said transmission data from the plurality of

divided data in response to said extended control sequence (the micro-controller 80

assembled into limited sized data frame , see col. 2 lines 26-40; and sequence number

129 in figure 6 and sequence 162 in figure 8).

Regarding claim 6, Venters discloses the first communication unit includes: a

CRC indicating unit outputting a CRC indication sequence as said extended control

sequence for indicating a CRC (Cyclic Redundancy Check) method; and a CRC

calculator calculating a CRC code according to said CRC method and outputting said

CRC code to said second communication unit, and said second communication unit

executes a CRC on said transmission data in response to said CRC indication

sequence based on said CRC code according to said CRC method (the extended

control sequence 145 in figure 7 includes CRC bit B6, see figure 7 and col. 7 lines 53-

59).

Regarding claim 9, Venters discloses a communication system comprising:

a first communication unit transmitting first transmission data; and

a second communication unit receiving said first transmission data, and

transmitting second transmission data, a control sequence, and an extended control

sequence to said first communication unit, wherein said control sequence is originally

defined by a protocol, and said extended control sequence is undefined by said

protocol, and said control sequence includes an abort sequence requesting for abortion

of said second transmission data, and said extended control sequence includes said

abort sequence, and said first communication unit adjusts a rate of transmitting said first

transmission data in response to said extended control sequence (the transceiver sends

transmission data 124 which includes parameter 125 (control sequence), extended

control sequence 126 (see figure 5) or 145 in figure 7 having abort bit B1, and the

transmission data 110, see figures 5 and 7 and col. 7 lines 3-22).

Regarding claim 11, Venters discloses the second communication unit includes:

a reception FIFO receiving and storing said first transmission data; and said extended

control sequence is generated in accordance with a state of said reception FIFO (see

col. 5 lines 12-29).

Regarding claim 12, Venters discloses the first communication unit divides said

first transmission data into a plurality of divided data, and transmits said plurality of

divided data and another extended control sequence to said second communication

unit, and said second communicating system reproduces said first transmission data

from said plurality of divided data in response to said another extended control

sequence (the micro-controller 80 assembled into limited sized data frame , see col. 2

lines 26-40; and each data frame includes a sequence number 129 in figure 6 and

sequence 162 in figure 8).

Regarding claim 13, Venters discloses a transmitter (West transceiver site 11,

see figures 1-2) comprising:

a data receiver receiving transmission data (SCC RX 72, see figure 2); and

a sending unit sending said transmission data (SCC TX 71, see figure 2), a

control sequence and an extended control sequence, wherein said control sequence is

originally defined by a protocol, and said extended control sequence is undefined by

said protocol and is provided for requesting an extended operation, and said control

sequence includes an abort sequence requesting for abortion of said transmission data

(the transceiver sends transmission data 124 which includes parameter 125 (control

sequence), extended control sequence 126 (see figure 5) or 145 in figure 7 having

abort bit B1, and the transmission data 110, see figures 5 and 7 and col. 7 lines 3-22).

Regarding claim 16, Venters discloses a receiver comprising:

a receiving unit receiving transmission data, a control sequence, and an

extended control sequence, wherein said control sequence is originally defined by a

protocol, and said extended control sequence is undefined by said protocol and is

provided for requesting an extended operation, and said control sequence includes an

abort sequence requesting for abortion of said transmission data (the transceiver sends

transmission data 124 which includes parameter 125 (control sequence0), extended

control sequence 126 (see figure 5) or 145 in figure 7 having abort bit B1, and the

transmission data 110, see figures 5 and 7 and col. 7 lines 3-22); and

an outputting unit outputting said transmission data (SCC TX 61, see figure 2),

wherein said receiving unit executes said extended operation in response to said

extended control sequence, and

said extended control sequence includes said abort sequence (extended control

sequence 126 (in figure 5) or 145 in figure 7 includes abort bit B1).

Regarding claim 19, Venters discloses a communication method comprising:

sending transmission data (see figures 1-5);

sending a control sequence originally defined by a protocol wherein said control

sequence includes an abort sequence requesting for abortion of said transmission data

(see figure 7);

sending an extended control sequence, wherein said extended control sequence

is undefined by said protocol and is provided for requesting an extended operation;

receiving said transmission data, said control sequence, and said extended control

sequence ; and

executing said extended operation in response to said extended control

sequence, wherein said extended control sequence includes said abort sequence (the

transceiver sends transmission data 124 which includes parameter 125 (control

sequence), extended control sequence 126 (see figure 5) or 145 in figure 7 having

abort bit B1, and the transmission data 110, see figures 5 and 7 and col. 7 lines 3-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-3, 10, 14-15, 17-18, and 20-21 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Venters in view of Admitted Prior Art (APA).

Regarding claim 2-3, 10, 14-15, 17-18, and 20-21, Venters discloses the

protocol is PPP protocol (see col. 7 lines 3-21). Venters fails to discloses the abort

sequence is represented by "7D, 7E" in the hexadecimal notation and consists of a

plurality of the abort sequence.

The APA discloses the standard PPP protocol comprises of the abort sequence

represented by "7D, 7E" in the hexadecimal notation and consists of a plurality of the

abort sequence (see figures 1-2 and pages 1-4 of the specification).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of invention was made includes the teaching of APA in the system taught by

Venters in order to comply with the PPP protocol standard.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Venters

in view of Alexander et al. (US 5,983,271), hereinafter Alexander.

Regarding claim 7, Venters fails to explicitly discloses first communication unit

includes: an operation test indicating unit outputting an operation test indicating

sequence as said extended control sequence, and outputting test data, and said second

communication unit executes an operation test based on said test data in response to

said operation test indicating sequence.

Alexander, on the other hand, disclose the standard Point-to-Point (PPP)

protocol has three main components of which one of the components includes

configuring and testing the datalink connection (see col. 2 line 6-28).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of invention was made includes the teaching of Alexander in the system taught

by Venters in order to comply with the PPP protocol standard.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Venters

in view of Drottar et al. (US 6,343,067), hereinafter Drottar.

Regarding claim 8, Venters fails to discloses second communication unit sends a

predetermined signal to said first communication unit in response to said extended

control sequence.

Drottar, on the other hand, discloses node A and switch X communicate

according to PPP protocol. When node A forwards data to the switch X and switch X

acknowledges receipt of the data, node A de-allocated the retained copy of the

transmitting data (col. 7 line 52-56).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of invention was made includes the teaching of Drottar especially

acknowledging the receipt of transmitted data in the system taught by Venters in order

to make sure the transmitter knows the transmitted data is received by the intended

receiver.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal
Service (USPS) only:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services
(Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand
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U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571)**

272-3083. The examiner can normally be reached on Monday-Tursday from 8:00 A.M.

to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-

week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor **Chau Nguyen**, can be reach on **(571) 272-3126.** The fax phone number for

this group is **(703) 872-9306.**

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh

TC 2600
Art Unit 2661
April 14, 2005   BOB PHUNKULH
PRIMARY EXAMINER